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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,333	03/12/2001	Subramanian Meiyappan	CISCP675	1800
26541	7590	08/26/2004	EXAMINER	
RITTER, LANG & KAPLAN 12930 SARATOGA AE. SUITE D1 SARATOGA, CA 95070			DO, CHAT C	
			ART UNIT	PAPER NUMBER
			2124	

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/805,333

Applicant(s)

MEIYAPPAN, SUBRAMANIAN

Examiner

Chat C. Do

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is responsive to Amendment filed 05/17/2004.
2. Claims 1-20 are pending in this application. Claims 1, 7, and 13 are independent claims. In Amendment, claims 6 and 12 are amended and claims 19-20 are added. This action is made final.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Koopman Jr. (U.S. 5,757,923).

Re claim 1, Koopman discloses in Figures 1-2 a method for generating a random value (output of crypto-secure bit hashing) method comprising:
monitoring a signal obtained from a communication channel (microphone collects data from fan in Figure 2), signal including additive noise (inherently); sampling signal to generate a random value (25 in Figure 1); and storing random value (42).

Re claim 2, Koopman further discloses in Figures 1-2 using random value as input to a cryptographic key generation process (right portion of Figure 2).

Re claim 3, Koopman further discloses in Figures 1-2 sampling comprises: sampling at times determined by output of a linear feedback shift register (feedback polynomial selection in Figure 2).

Re claim 4, Koopman further discloses in Figures 1-2 monitoring comprises monitoring a digital signal represented by multiple bits (col. 5 lines 60-62).

Re claim 5, Koopman further discloses in Figures 1-2 reordering multiple bits prior to sampling (data shuffling in Figure 2).

Re claim 6, Koopman further discloses in Figures 1-2 digital signal obtained from an output of an analog to digital converter (25 in Figure 1).

Re claim 7, it is a means apparatus claim of claim 1. Thus, claim 7 is also rejected under the same rationale in the rejection of rejected claim 1.

Re claim 8, it is a means apparatus claim of claim 2. Thus, claim 8 is also rejected under the same rationale in the rejection of rejected claim 2.

Re claim 9, it is a means apparatus claim of claim 3. Thus, claim 9 is also rejected under the same rationale in the rejection of rejected claim 3.

Re claim 10, it is a means apparatus claim of claim 4. Thus, claim 10 is also rejected under the same rationale in the rejection of rejected claim 4.

Re claim 11, it is a means apparatus claim of claim 5. Thus, claim 11 is also rejected under the same rationale in the rejection of rejected claim 5.

Re claim 12, it is a means apparatus claim of claim 6. Thus, claim 12 is also rejected under the same rationale in the rejection of rejected claim 6.

Re claim 13, it is an apparatus claim of claim 1. Thus, claim 13 is also rejected under the same rationale in the rejection of rejected claim 1.

Re claim 14, Koopman further discloses in Figures 1-2 a sampler that samples signal to generate random value (output of 25 in Figure 1).

Re claim 15, it is an apparatus claim of claim 3. Thus, claim 15 is also rejected under the same rationale in the rejection of rejected claim 3.

Re claim 16, Koopman further discloses in Figures 1-2 signal comprises a digital signal (output of crypto-secure bit hashing in Figure 2).

Re claim 17, it is an apparatus claim of claim 5. Thus, claim 17 is also rejected under the same rationale in the rejection of rejected claim 5.

Re claim 18, it is an apparatus claim of claim 6. Thus, claim 18 is also rejected under the same rationale in the rejection of rejected claim 6.

Re claim 20, Koopman further discloses the communication channel is a wireless communication channel of a communication network, and the signal is arranged to include data (Figure 2 with car remote control).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being obvious over Koopman Jr (U.S. 5,757,923) in view of Maher et al. (U.S. 4,545,024).

Re claim 19, Koopman fails to disclose the signal further includes a modulation signal and the additive noise is AWGN. However, Maher et al. disclose in Figure 1 a method of generating a random value including a modulation signal (16) and additive noise (11) wherein the additive noise is AWGN (col. 2 lines 4-10). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add an additive noise as AWGN as seen in Maher et al.'s invention into Koopman's invention because the AWGN has the properties of nonreversible and nondeterministic random-like which would enable to generate a truly random number.

Response to Arguments

7. Applicant's arguments filed 05/17/2004 have been fully considered but they are not persuasive.

- a. The applicant argues in page 6 first paragraph for claim 1 that the electromechanical generator is not obtained from a communication channel.

The examiner respectfully submits that the broad term "communication channel" does not tight to any specific channel. Instead any channel that receive or transmit data would be a communication channel. In this case, the examiner interprets the noise generator as a communication channel wherein the noise source (fan) generates noise, converts to digital signal and generates random number based on that digital signal as seen in Figure 3.

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b. The applicant argues in page 6 second paragraph for claim 1 that the cited art fails to disclose sampling a signal to generate a random value.

The examiner respectfully submits that Figure of the cited art clearly disclose in Figure 1 part 25 a device (box with label "sampler and digitizer") that sampling and processing the signal from the noise source to generate a random value as clearly seen in Figure 3.

c. The applicant argues in pages 6-7 last paragraph for claim 1 that the random numbers do not appear to be stored after they are generated using algorithmic functions and the secret ID of Koopman does not appear to be generated through the sampling of a signal.

The examiner respectfully submits that first the secret ID numbers is a encrypted random number as cited in col. 5 lines 1-10 and col. 10 lines 9-15 and the secret random number is generated and stored in memory located at the box in Figure 1 with label 42.

d. The applicant argues in page 7 second paragraph for claim 4 that the cited art does not disclose monitoring a digital signal which is then sampled to generated a random value.

The examiner respectfully submits that after sampling the sound (analog) signal from the noise source, the sampled signal becomes digital and is monitored to generate the random value for use in cryptographic as clearly seen in Figure 2.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do
Examiner
Art Unit 2124

8/9/04

A handwritten signature in black ink, appearing to read 'TODD INGERBERG', with a long horizontal stroke extending to the right.

TODD INGERBERG
PRIMARY EXAMINER